

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently amended): A flat security element, having a front side and a reverse side, and being relatively small in size, such as planchettes, wherein the element includes an in-register authentication pattern comprising at least one of (i) a combination and (ii) a superposition of a front side pattern on its front side and of a reverse side pattern on its reverse side, ~~at least one~~

~~_____ wherein each of said authentication front side and reverse side patterns being is~~ at least partly observable in transmitted light,

~~_____ wherein said front side pattern is in the form of a front side geometric pattern and said reverse side pattern is in the form of a reverse side geometric pattern,~~

~~_____ wherein a registration of the in-register authentication pattern is characterized by at least one of~~

~~_____ (a) said in-register authentication pattern is in register either with respect to at least one portion of the shape of said security element, and/or~~

~~_____ (b) at least one portion of said front side and reverse side patterns is in register with respect to at least one portion of the other of said front side and reverse side patterns,~~

~~_____ wherein the registration of said authentication pattern is observable in transmitted light from the front side and from the reverse side of the security element.~~

2-3. (Canceled)

4. (Currently amended): The security element as claimed in claim 1, wherein said ~~element~~ front side pattern includes, ~~as pattern on the front side~~, at least one given color and ~~as pattern on the reverse side~~ said reverse side patterns includes at least one other given color, said authentication pattern observed in transmitted light ~~being the~~ having a color resulting from the color on the reverse side and the color on the front side.

5. (Currently amended): The security element as claimed in ~~the preceding~~ claim 4, wherein the colors on the front and reverse sides are chosen from primary colors.

6. (Currently amended): The security element as claimed in claim 1, wherein ~~one of each of~~ said front side and reverse side patterns is ~~a pattern in the form of a geometric pattern, in particular selected from patterns in alphanumeric form, and/or patterns in the form of a grid and/or, patterns in the form of lines and/or, patterns in the form of dots, and patterns formed of combinations thereof.~~

7. (Currently amended): The security element as claimed in claim 1, wherein the dimensions of said element are between 0.5 and 6 mm, ~~preferably between 1 and 4 mm.~~

8. (Currently amended): The security element as claimed in claim 1, wherein ~~it has a geometric shape, especially a~~ each of the front side geometric shape and the reverse side geometric shape is selected from the group consisting of circular shapes, triangular shapes, oval shapes, square

~~shapes, or rectangular shape shapes, or a star shape shapes, moon shape or a shapes, and shape~~
shapes with curved edges.

9. (Currently amended): The security element as claimed in claim 1, wherein it includes printing in an amount of 1 to 10 g/m² per side, ~~preferably between about 2 and 5 g/m² per side,~~ by dry weight.

10. (Currently amended): The security element as claimed in claim 1, wherein each of said element includes front side and reverse side patterns is chosen from ~~these patterns~~ that are visible in natural light ~~or, patterns that are~~ visible in UV light, patterns that are luminescent, ~~particularly fluorescent or phosphorescent, patterns~~ that are detectable by near infrared radiation, ~~or patterns that are detectable by medium infrared radiation, patterns~~ that are thermochromic ~~or, patterns that are piezochromic, patterns~~ that are based on DNA traces, patterns that are optically variable, ~~especially iridescent, or patterns that are based on liquid crystals or, patterns that are based on diffraction gratings or, patterns that are based on moiré patterns or, patterns that are based on holograms, or patterns that are electromagnetic, or and combinations thereof.~~

11. (Currently amended): The security element as claimed in claim 10, wherein said element includes, beneath or alongside said front side and reverse side patterns, printing of electromagnetic, ~~especially magnetic, character and, in particular, continuous tracks or codes in the form of magnetic bits.~~

12. (Currently amended): The security element as claimed in claim 1, wherein at least one of the front side and reverse side patterns is visible to the naked eye.

13. (Currently amended): The security element as claimed in claim 1, wherein said element includes at least one of chemical authentication reactants, ~~or~~ and reactants that reveal a specific event.

14. (Currently amended): The security element as claimed in claim 1, wherein said security element has a medium ~~chosen from a fibrous sheet, a plastic film and a complex of these materials~~ which includes fibers.

15. (Currently amended): The security element as claimed in claim 14, wherein said medium has at least one of a low-basis weight, in particular between of from 25 and to 40 g/m², and/or and a thickness between about of from 50 and to 110 μm.

16. (Currently amended): The security element as claimed in claim 14, wherein said medium is a fibrous sheet ~~of said medium is based on~~ at least one of natural and/or and synthetic fibers.

17. (Previously presented): The security element as claimed in claim 16, wherein said fibrous sheet is a paper based on cellulose fibers refined to a low degree, of the overlay type.

18. (Currently amended): The security element as claimed in claim 14, wherein the medium is a complex of a fibrous sheet and a plastic film ~~of said element is a polyester film.~~

19. (Previously presented): The security element as claimed in claim 14, wherein said element is based on a bulk-opacified medium or on a medium having, on at least one of its sides, at least partly, a full or partial color, opacifying or barrier layer or printing.

20. (Currently amended): A security sheet comprising a fibrous substrate that includes several flat security elements ~~of relatively small size, such as those described as recited~~ in claim 1.

21. (Currently amended): The security sheet as claimed in the preceding claim 20, wherein said security elements are at least one of arranged in the form of a band ~~and/or~~ and randomly distributed within said substrate.

22. (Previously presented): A security document obtained from a sheet as claimed in claim 20.

23. (Previously presented): A process for manufacturing security elements, ~~which include an in-register pattern as described as claimed~~ in claim 1, comprising the following steps:

- ~~at least one portion of said authentication patterns is printed in one or more steps on one of the sides of its printing front side patterns on a front side of a medium of the security elements;~~
- ~~at least one portion of said authentication patterns is printed, where appropriate on the other side, in one or more steps, either by being in register with respect to at least one portion of the shape of said element or by being in registration with respect to the previously printed portion printing a reverse side patterns on a reverse side of the medium of the security elements,~~

~~so as to form in-register authentication patterns comprising at least one of (i) a combination and (ii) a superposition of the front side patterns on its front side and of the reverse side patterns on its reverse side, each of said front side and reverse side patterns being at least partly observable in transmitted light,~~

~~wherein said front side patterns are in the form of front side geometric patterns and said reverse side patterns are in the form of a reverse side geometric patterns,~~

~~wherein a registration of the in-register authentication patterns is characterized by at least one of~~

~~(a) said in-register authentication pattern is in register with respect to at least one portion of a desired shape of said security element, and~~

(b) at least one portion of said front side and reverse side patterns is in register with respect to at least one portion of the other of said front side and reverse side patterns,
wherein the registration of said authentication patterns is observable in transmitted light from the front side and from the reverse side of the medium.

24. (Previously presented): The manufacturing process as claimed in claim 23, wherein the printed medium is cut in registration into security elements of the desired shape and such that at least the in-register pattern is wholly present on said element.

25. (New): The security element as claimed in claim 1, wherein the security element comprises a medium which is a plastic film.

26. (New): The security element as claimed in claim 25, wherein the plastic film is a polyester film.

27. (New): A security sheet comprising a fibrous substrate that includes several flat security elements as recited in claim 14.

28. (New): A security sheet comprising a fibrous substrate that includes several flat security elements as recited in claim 16.

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29. (New): The security element as claimed in claim 10, wherein each of said front side and reverse side patterns is chosen from fluorescent patterns, phosphorescent patterns, and combinations thereof.